



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,341	02/17/2005	Dieter Voigt	WP-1877-P/US	8950

7590 07/09/2007
Martin A Farber
Suite 473
866 United Nations Plaza
New York, NY 10017

EXAMINER

WEINSTEIN, LEONARD J

ART UNIT	PAPER NUMBER
----------	--------------

3746

MAIL DATE	DELIVERY MODE
-----------	---------------

07/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,341	VOIGT, DIETER	
	Examiner	Art Unit	
	Leonard J. Weinstein	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/23/06</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3746

DETAILED ACTION

Claim Objections

1. Claim 19 is objected to because of the following informalities: "switching piston" as best understood by the examiner should be --- switching piston means ---.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 10-21, 23, 25, 27, and 29-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Koch et al. US 2002/0088225 A1. Koch teaches all the limitations as claimed for a device for pressure regulation of a hydraulic pump including: a delivery-quantity regulating means, a piston unit including first biasing means 150, as shown in figure 1 with element 100, a piston member 104, a first surface 110 on said piston member 104 to be biased by a first biasing force of said hydraulic medium in a first direction, via element 129 delivering a hydraulic fluid, a second surface 113 on said piston member 104 engaged, via element 112 by said first biasing means 150 to be biased by a second biasing force, via elements 170, 180, 184, and 188, in a second direction, opposite to said first direction, second biasing means 170 to bias said piston member 104 in addition to said hydraulic medium and said first biasing means 150, thus influencing the pressure of said hydraulic medium; a hydraulic medium provide being

Art Unit: 3746

lubricating oil (¶0030), and a hydraulic pump supplies lubricating oil to an internal combustion engine (¶0002); a first biasing means 150 comprising spring means; a second biasing means 170 comprising magnetic coil means, elements 170A and 170B, and armature means 180 acting onto said piston member 104, via elements 184 in communication with element 188; a second biasing means 170 comprising motor means for adjusting said second biasing force of said first biasing means 150 (¶0035); a stepping motor provided for a motor means (¶0035); a first path 129 of hydraulic medium including means, oil pump as recited in the disclosure of Koch, to provide an elevated pressure of hydraulic medium, and a second path 128 of hydraulic medium including means, via a sump (not shown), to provide a lower pressure of said hydraulic medium as compared with said elevated pressure, and switch means 109 for opening at least one of said paths, elements 128 and 129; a second biasing means 170 comprise electric means, elements 170A and 170B, to be supplied with electric current, the device further comprising means, elements 260 and 298, capable of urging the switch means 120 to open said first path 129 and to provide said elevated pressure (¶0073); a biasing means comprising centrifugal valve means 122, drive means, as element 122 is rotated via connecting element 123, for rotating said centrifugal valve means 122 to exert a speed-dependent influence (¶0031) onto the pressure of said lubricating oil; a centrifugal valve means 122 comprise a first path 127 for lubricating oil to said first surface 110 of said piston member 104, at least one second path 147 for allowing partial draining of said lubricating oil, switching piston means 120 movable in an at least partially radial direction for alternatively opening one of said first 127 and second 147 paths, and third biasing means 190 for biasing said switching piston means 120 towards said first path 127 (¶0037 and 0043); a third biasing means 190 comprising spring means, as shown in figure 1; a switching piston means 120 being positioned inclined to said radial direction, with

Art Unit: 3746

elements 132 and 138 able to pivot via elements 134 and 140; a switching piston means 120 comprising projection means, elements 132 and 138, extending in said at least partially radial direction, said projection means, elements 132 and 138, being engaged by said third biasing means 190, via elements 136 and 142 in communication with element 114 (¶0032); a second biasing means 170, being in communication with element 122 via elements 120, 131, 160, and comprising conveying means, via elements 126, 127, and 147 being put in communication with 117 and 118 during an operation of invention shown in figure 1, for said hydraulic medium for conveying it into a certain direction, thus altering the pressure of said hydraulic medium; a piston member 104 comprising at least a third surface 112 to be biased by said hydraulic medium in said first direction, and switching means 120 for allowing hydraulic medium to pass to at least one of said first 110 and said at least third 112 surfaces; a housing means, element enclosing elements 104, 131, and 160 being separate however connected to element 102 considered here to be a main housing, for receiving said hydraulic medium in at least one cavity, as defined by bore surround elements 122 and 104, said second biasing means 170 comprising at least one electrical component 170A, which is mounted, within element 102 separate from a main housing as discussed, outside said housing means, main housing, and at least one hydraulic conduit means, as element 188 being operatively connected to element 104 within a cavity, for communication of said cavity, as defined by bore surround elements 122 and 104, and said electrical component 170A; and a housing means, main housing as defined above, for receiving the piston member 104, the second biasing means 170 comprising at least one electrical component 170A attached, via element 102, to said housing means, main housing.

Art Unit: 3746

4. Claim 24 is rejected under 35 U.S.C. 102(b) as being anticipated by Barber 5,921,279. Barber teaches all the limitations as claimed for a device for pressure regulation of a hydraulic pump including: a delivery-quantity regulating means 10, a piston unit 16 including first biasing means 92, a piston member, elements 68, 84, and 90, a first surface 88 on said piston member, elements 68, 84, and 90, to be biased by a first biasing force, via element 74 delivering a hydraulic fluid, of said hydraulic medium in a first direction, a second surface, section of element 84 in communication with element 86, on said piston member 16 engaged by said first biasing means 92, via element 84, to be biased by a second biasing force, via element 58, in a second direction, opposite to said first direction, second biasing means 58 to bias said piston member 16 in addition to said hydraulic medium and said first biasing means 92, thus influencing the pressure of the hydraulic medium; and a second biasing means 58 comprising electro-valve means, with elements 60 and 62.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al. US 2002/0088225 A1. Koch discloses the claimed invention including the limitation of a drive means (¶0032) comprising shaft means 123 and a pumping gear means 146A and a switching piston means, as element 122 is operably connected to element 120 and located within element 146, but fails to teach a third biasing means being located within a pumping gear means. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a biasing means within a pumping gear in order to provide a more compact device for regulating a hydraulic pump pressure. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koch et al. Koch discloses the claimed invention except that a conveying means comprising a rotating shaft means has uniform grooves, elements 126, 127 and 147, instead of helical grooves in the said shaft means. Khoo et al. 5,842,420 shows that rotating shaft 30 that conveys a fluid having helical grooves 68 was an equivalent structure known in the art. In order to rely on equivalence as a rationale supporting an obviousness-type rejection, the equivalency must be recognized in the prior art. *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). Khoo represents evidence that rotating shafts conveying fluid having helical grooves within a shaft were art-recognized equivalent structures for a rotating shaft having uniform grooves. Therefore, because these two shaft configurations were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute uniform grooves for helical grooves. An express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. *In re Fout*, 675 F.2d 297, 213 USPQ 532 (CCPA 1982).

Art Unit: 3746

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koch in view of Snoy 4,275,607. Koch teaches all the limitations as discussed but fails to teach the following limitation that is taught by Snoy for a device for pressure regulation of a hydraulic pump 80 comprising a filter 82 means arranged in series with a first surface of a piston member 85. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a filter in a pressure regulating device in order to ensure a constant fluid flow through a hydraulic circuit (Snoy- col. 4 ll. 3-8).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited on form 892 herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LJW



ANTHONY D. STASHICK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700